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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ROSENBERG, KLEIN & LEE
3458 ELLICOTT CENTER DRIVE-SUITE 101
ELLICOTT CITY, MD 21043

EXAMINER

SHAPIRO, LEONID

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 08/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/838,223

Applicant(s)

CHEN, RICH

Examiner

Leonid Shapiro

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2673

Specification

1. Substitute specification filed on 07-01-03 was entered.

Drawings

2. The corrected drawings were received and approved on 07-01-03. These drawings are 5, 7-8.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroshi JP 08-278966 in view of Chiang (US Patent No.6,154,758).

As to claim 1, Hiroshi teaches an auxiliary device for editing documents, comprising: a modular key set with a document editing function (See Fig. 1, items 5-7, in Detailed description See Page 2, paragraph 0009); the modular set being arranged on computer peripheral; generating a pseudo composite-key code corresponding to a key in the modular key set pressed by a user (See Fig. 1, items 5-7, 8-10, in Detailed description See Page 2, paragraph 0009); whereby the user can directly edit a document by using the modular key set provided on the computer

Art Unit: 2673

peripheral without chording (See Figs. 1-4, items 5-7, 8-10, in Detailed description See Pages 2-5, paragraph 0009-0032).

Hiroshi does not show a computer peripheral having an internal circuit with a single-chip microprocessor and the modular set being connected to an I/O bus of single-chip microprocessor generating a predetermined pseudo composite-key code.

Chiang teaches a single chip microprocessor in converting display text from one format to another (See Fig. 1, item 12, in description See Col. 4, Lines 42-50). It would have been obvious to one of ordinary skill in the art at the time of invention use single chip microprocessor as shown by Chiang in the Hiroshi apparatus to connect the modular set to an I/O bus of single-chip microprocessor to generate a predetermined pseudo composite-key code in order to replace the selected text with a text from different text domain (See Col. 3, Lines 10-11 in Chang reference).

As to claim 8, Hiroshi does not teach wherein the predetermined pseudo composite-key code of the modular key set has at least 1.5-2 ms separation between separation between successive key codes. However, it is generally considered to be within the ordinary skill in the art to adjust, vary, select or optimize the numerical parameters or values of any system absent of showing criticality of in a particular recited value. Thus, it would have been obvious to one of ordinary skill in the art at the time of invention to interchange values of separation.

4. Claims 5-6, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroshi and Chiang as aforementioned in claim 1 in view of Paolini (US Patent No. 6,429,793 B1).

Art Unit: 2673

As to claim 5, Hiroshi and Chiang do not teach a code conversion of the predetermined pseudo composite-key code is accomplished by sending specific codes to code-conversion application software.

Paolini teaches sending specific code to a code-conversion software (See Fig. 2, item 240, in description See Col. 4, Lines 52-68). It would have been obvious to one of ordinary skill in the art at the time of invention to send specific code to a code-conversion software as shown by Paolini in the Hiroshi and Chiang apparatus in order to provide the flexibility to modify individual key associations (See col. 3, Lines 15-16 in the Paolini reference).

As to claim 6, Paolini teaches a keyboard as computer peripheral (See Fig. 1, item 140, in description See Col. 4, Lines 11-39).

As to claim 9, Hiroshi and Chiang do not teach modular key set is arranged adjacent the arrow keys on keyboard.

Paolini teaches that any key could be reprogram to any function on output character (See Fig. 2, item 260, in description See Col. 5, Lines 16-30). It would have been obvious to one of ordinary skill in the art at the time of invention to place the modular key set beside the Shift key on keyboard in the Paolini and Chiang apparatus in order to provide extra functions on a keyboard (See Col. 2, Lines 38-41 in Paolini reference).

5. Claims 7, 10-13, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroshi and Chiang as aforementioned in claim 1 in view of Kraft (US Patent no. 6,309,305 B1).

Hiroshi and Chiang do not teach a cut key, a paste key, a mark key

Art Unit: 2673

Kraft teaches paste key out of modular set (See 2-3, 8, items 2-3, in description See Col. 4, Lines 56-68 and Col. 5, Lines 1-12).

Kraft does not teach a cut , a mark, a send, keys. It would have been obvious to one of ordinary skill in the art at the time of invention to add to modular key set different keys as shown by Kraft in Hiroshi and Chiang apparatus to use predetermined pseudo composite-key code of modular key set in order to provide a method of transferring data from one application to another (See Col. 1, Lines 46-49 in Kraft reference).

6. Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroshi and Chiang in view of Krause et al. (US Patent No. 6,154,757).

Hiroshi and Chiang do not show short-cut key is further provided on the computer peripheral to invoke an associated program.

Krause et al. teaches shortcut keys which automatically advance the text displays (See Fig. 4B, item 447, in description See Col. 10, Lines 33-39). It would have been obvious to one of ordinary skill in the art at the time of invention to implement short-cut key as shown by Krause et al. in the Hiroshi and Chiang apparatus in order to enhanced a user ability for moving around with a text (See Col. 1, Lines 24-29 in Krause et al. reference).

7. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroshi, Chiang and Krause et. al. as aforementioned in claim 2 in view of Kraft.

Hiroshi, Chiang and Krause et al. do not teach a short-cut key.

Art Unit: 2673

Kraft teaches paste key out of modular set (See 2-3, 8, items 2-3, in description See Col. 4, Lines 56-68 and Col. 5, Lines 1-12).

Kraft does not teach a short-cut keys. It would have been obvious to one of ordinary skill in the art at the time of invention to add to modular key set different keys as shown by Kraft in the Hiroshi, Chiang and Krause et al. apparatus to use predetermined pseudo composite-key code of modular key set in order to provide a method of transferring data from one application to another (See Col. 1, Lines 46-49 in Kraft reference).

8. Claims 3, 14-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroshi and Chiang as aforementioned in claim 1 in view of Hsu et al. (US Patent No. 6,320,519 B1).

Hiroshi and Chiang do not show switch key with LED and a plurality of composite keys and the functions of the composite keys controlled by a switch key.

Hsu et al. teaches switch key (symbol key) with LED (for ScrollLock key) and a plurality of composite keys and the functions of the composite keys controlled by a switch key (See Fig. 1-2, item 15-26, in description See Col. 3, Line 37 and Col. 4, Lines 58-67, Col. 5, Lines 58-68).

It would have been obvious to one of ordinary skill in the art at the time of invention to implement switch key to modify composite keys for redo, undo, bold, open, new, save, find, forward and function keys F1-F12 as shown by Hsu et al. in the Hiroshi and Chiang apparatus to use predetermined pseudo composite-key code of modular key set in order to switch a plurality of switchable keys between a first key code set and second key code set with a single modifier key (See Col. 2, Lines 17-20 in Hsu et al. reference).

Art Unit: 2673

Response to Amendment

9. Applicant's arguments filed on 07-01-03 with respect to claims 1-3, 5-25 have been considered but are moot in view of the new ground(s) of rejection.

Telephone inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 703-305-5661. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703-305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

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August 12, 2003



BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600